West Virginia Department of Environmental Protection
Division of Air Quality

Fact Sheet

For Final Renewal Permitting Action Under 45CSR30 and Title V of the Clean Air Act

Permit Number: **R30-00700016-2013**
Application Received: **April 23, 2012**
Plant Identification Number: **00700016**
Permittee: **Weyerhaeuser NR Company**
Facility Name: **Sutton OSB Mill**
Mailing Address: **3601 Gauley Turnpike, Heaters, WV 26627**

Physical Location:	Heaters, Braxton County, West Virginia
UTM Coordinates:	529.939 km Easting • 4,290.213 km Northing • Zone 17
Directions:	Exit I-79 at the Flatwoods exit, then proceed north on Route 4/US 19 approximately 3.2 miles. The facility entrance is on the left.

Facility Description

Weyerhaeuser Sutton produces oriented strandboard (OSB) with methylene diphenyl diisocyante (MDI) resin, phenol-formaldehyde (PF) resin, wood strands, wax, and other additives to form the surface and core layers entering the OSB press. Weyerhaeuser Sutton produces OSB using predominately hardwood.

Major processing areas at the facility include: Log Intake and Storage, Flaking and Screening, Strand Drying, Mat Preparation, Pressing, and Board Finishing and Shipping. The average OSB production rate is estimated to be 80,250 square feet per hour on a 3/8 inch-basis and 8,760 hours of operation per year. This equates to an average volume of 2,508 cubic feet per hour. During compliance testing the mill demonstrated its ability to operate closer to 3,154 cubic feet per hour.

Emissions Summary

Plantwide Emissions Summary [Tons per Year]

Regulated Pollutants	Potential Emissions	2010 Actual Emissions
Carbon Monoxide (CO)	229	41.7
Nitrogen Oxides (NO_X)	243.7	66.8
Particulate Matter (PM_{10})	96.9	NA
Total Particulate Matter (TSP)	96.9	25.8
Particulate Matter ($PM_{2.5}$)	87.8	NA
Sulfur Dioxide (SO_2)	18.0	9.4
Volatile Organic Compounds (VOC)[1]	122.8	47.1
Lead	0.03	0.015

PM_{10} is a component of TSP.

Hazardous Air Pollutants	Potential Emissions	2010 Actual Emissions
Total HAPs	43.8*	10.6
Acetaldehyde	4.89	1.27
Acrolein	1.13	0.32
Chlorine	0.44	0.20
Cumene	6.39	1.47
Formaldehyde	11.10	4.54
Hydrogen chloride	0.99	0.563
Methanol	34.27	1.02
Xylenes	1.96	0.001

Some of the above HAPs may be counted as PM or VOCs.

* Trace HAPs not specifically listed but reflected by the total include the following: Acetophenone, Antimony, Arsenic, Benzene, Beryllium, Bis(2-ethylhexyl-phthalate), Cadmium, Carbon disulfide, Carbon tetrachloride, Chlorobenzene, Chloroform, Chromium, Cobalt, Dinitrophenol, 2,4-Dioxin (2,3,7,8-TCDD), Ethylbenzene, Hexane, Lead, Manganese, Mercury, Methyl chloride, Methyl chloroform, Methyl ethyl ketone, Methyl isobutyl ketone, Methylene chloride, Dichloromethane, Methylene diphenyl diisocyanate (MDI), Naphthalene, Nickel, Nitrophenol, 4-Pentachlorophenol, Phenol, POM, Propionaldehyde, Selenium, Styrene, Tetrachloroethylene.

[1] The VOC total reflects emission adjustments in accordance with EPA's Wood Products Protocol 1 (WPP1) VOC guidance. This takes into account emissions of formaldehyde, methanol, and methane.

Title V Program Applicability Basis

This facility has the potential to emit over 100 tons per year of criteria pollutants (NO_x, CO, and VOCs), over 10 tons per year of a single HAP, and over 25 tons per year of a combination of HAPs. Due to this facility's potential to emit over 100 tons per year of criteria pollutants, over 10 tons per year of a single

HAP, and over 25 tons per year of aggregate HAPs, Weyerhaeuser Sutton is required to have an operating permit pursuant to Title V of the Federal Clean Air Act as amended and 45CSR30.

Legal and Factual Basis for Permit Conditions

The State and Federally-enforceable conditions of the Title V Operating Permits are based upon the requirements of the State of West Virginia Operating Permit Rule 45CSR30 for the purposes of Title V of the Federal Clean Air Act and the underlying applicable requirements in other state and federal rules.

This facility has been found to be subject to the following applicable rules:

Federal and State:	45CSR2	Particulate matter and opacity limits for indirect heat exchangers.
	45CSR6	Open burning prohibited.
	45CSR7	Particulate matter and opacity limits for manufacturing sources.
	45CSR10	Sulfur dioxide limits.
	45CSR11	Standby plans for emergency episodes.
	45CSR13	Preconstruction permits for minor sources.
	WV Code § 22-5-4 (a) (14)	The Secretary can request any pertinent information such as annual emission inventory reporting.
	45CSR16	Emission Standards for New Stationary Sources Pursuant to 40 C.F.R. Part 60.
	45CSR30	Operating permit requirement.
	45CSR34	Emission Standards for Hazardous Air Pollutants Pursuant to 40 C.F.R. Part 63.
	40 C.F.R. Part 60, Subpart Dc	Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units.
	40 C.F.R. Part 61	Asbestos inspection and removal
	40 C.F.R. Part 63, Subpart DDDD	Plywood and Composite Wood Products MACT
	40 C.F.R. Part 63, Subpart ZZZZ	RICE MACT Standards
	40 C.F.R. Part 82, Subpart F	Ozone depleting substances
State Only:	45CSR4	No objectionable odors.
	45CSR27	Best Available Technology (BAT) for Toxic Air Pollutants (TAPs)

Each State and Federally-enforceable condition of the draft Title V Operating Permit references the specific relevant requirements of 45CSR30 or the applicable requirement upon which it is based. Any condition of the draft Title V permit that is enforceable by the State but is not Federally-enforceable is identified in the draft Title V permit as such.

The Secretary's authority to require standards under 40 C.F.R. Part 60 (NSPS), 40 C.F.R. Part 61 (NESHAPs), and 40 C.F.R. Part 63 (NESHAPs MACT) is provided in West Virginia Code §§ 22-5-1 *et seq.*, 45CSR16, 45CSR34 and 45CSR30.

Active Permits/Consent Orders

Permit or Consent Order Number	Date of Issuance	Permit Determinations or Amendments That Affect the Permit *(if any)*
R13-1761G	March 12, 2009	N/A

Conditions from this facility's Rule 13 permit(s) governing construction-related specifications and timing requirements will not be included in the Title V Operating Permit but will remain independently enforceable under the applicable Rule 13 permit(s). All other conditions from this facility's Rule 13 permit(s) governing the source's operation and compliance have been incorporated into this Title V permit in accordance with the "General Requirement Comparison Table B," which may be downloaded from DAQ's website.

Determinations and Justifications

The first Title V Permit renewal was issued on October 24, 2007. Since this time there have been three Title V permit modifications. Two which incorporate two R13-1761 modifications; and one that incorporates the results of MACT testing as summarized below. Additionally, two permit determinations were evaluated over the last permit term. The following is a listing of permitting actions which have occurred since the issuance of the first Title V renewal.

1) *R13-1761F and Title V Modification SM01*. R13-1761F was issued on July 23, 2008. The following changes approved by R13-1761F were incorporated into the Title V Permit by Significant Modification SM01, issued on December 29, 2008:

   a) Installation of two regenerative thermal oxidizers (RTOs) to comply with 40 CFR 63, subpart DDDD. These control devices reduced VOC emissions by 158.29 tpy and increased CO emissions by 136.1 tpy, according to the minor source NSR permit evaluation. These control devices were also permitted to operate as regenerative catalytic oxidizers (RCOs) with the anticipation of incorporating a layer of catalyst on top of the heat sink media of the RTO.
   b) Also under SM01, the PM_{10} emission limits for emission points 4, 5, 6, and 9 were increased to reflect more recent emission factors developed by Weyerhaeuser.
   c) Additionally, the VOC emission limits on points 1, 3, 4, 5, 6, 7, and 9 were also increased to reflect these updated emission factors
   d) The allowance for bypass venting to emission point 24 was reduced from 750 hours per year to 500 hours per year.
   e) The usage of powdered phenol/formaldehyde resin was allowed in addition to the typical liquid resin.
   f) The limitation on the use of pine as a raw material was removed since the newly incorporated RTO/RCO control devices helped to maintain VOC emissions below the 250 tpy PSD threshold.
   g) Added testing requirements for emission point 21 as condition 4.3.1.

2) *R13-1761G and Title V Modification MM01*. R13-1761G was issued on March 12, 2009. The following changes approved by R13-1761G were incorporated into the Title V Permit by Minor Modification MM01, issued on April 21, 2009:

   a) This permitting action incorporated the company's request to exercise an allowance under 40CFR63, subpart DDDD called the routine control device maintenance exemption (RCDME). This request allows for periods of control device downtime as approved by a December 8, 2008 letter from the WVDAQ.

3) *Title V Modification SM02*. Significant Title V modification SM02 was approved on December 7, 2009. This modification incorporated the MACT operating limits defined as RCO and RTO operating temperatures. These temperatures were established by stack testing demonstrations, which verified compliance with 40CFR63, subpart DDDD. Testing for the RTOs took place on March 17-18, 2009 and the RCOs demonstrated compliance on June 11, 2009.

4) *PD10-021and R13-1761H*. This permit determination and subsequent permit application requested an allowance to burn alternative fuels in the energy cells in addition to those allowed under PD03-026. The previous permit determination, PD03-026, requested permission to combust the following waste materials on an intermittent basis in the two energy cells: Green Edgeseal, Gold Edgeseal, white stencil paint, black stamp ink, heat transfer oil, Dowtherm 4000, wax, antifreeze, phenol resin, absorbants, gear lube, Ozzy Juice, Trunion Grease, and release agent. Weyerhaeuser was notified on April 3, 2003 that a permit would not be needed for the proposed use of these waste materials in the energy cells. This determination also did not require a modification to the Title V Permit. However, under the 2010 request, PD10-021, and subsequent permit application, R13-1761H, received on December 12, 2011, Weyerhaeuser was asked to provide emission estimates while burning these alternative fuels. As a result, the company decided to withdraw the request and wait until the boiler MACT and CISWI regulations could be finalized with a new standardized definition for solid waste. On October 11, 2012 this permit application request was withdrawn via an October 8, 2012 letter from the company. This letter stated that Weyerhaeuser, "will continue to operate under the past approvals and existing permits as written."

   Weyerhaeuser has indicated their corporate office is working on putting together a determination concerning all potential alternative fuels under the newly amended definitions of the federal regulations. Therefore, the company has been advised by the writer that future testing events should encompass use of these alternative fuels.

5) *PD11-040*. This permit determination was received on October 17, 2011 for the installation of two new pieces of finishing equipment. This equipment adds an arch and proprietary notch system to 3 locations across the width of one end of the Edge Gold OSB panel, to enhance drainage of rain water during the construction phase when these panels are exposed to the elements. The result of this permit determination was a no permit needed decision on November 1, 2011.

As a result of this proposed renewal the following items were changed or added to the permit:

1) A new section 5.0 was added to the permit to accommodate RICE MACT operating standards defined by 40 C.F.R. 63, Subpart ZZZZ. The affected emission unit is the emergency diesel generator listed under the ID of 27S. This unit was installed in 1996 and is rated at 760 hp. As a result, the Federal regulation classifies the engine under emergency units, greater than 500 hp at a major source of HAPs. These operating requirements are limited to operating constraints placed on the emergency unit to limit its use to only emergency situations and maintenance testing. If the source was to use the generator for anything other than emergency purposes at the facility, then it would become subject to non-emergency CI emission standards under this subpart.

2) The table of contents was updated to the simplified format. Additionally, the facility wide requirements of section 3.0 were updated to reflect changes to DAQ's general boilerplate requirements within conditions 3.1.1, 3.1.2, 3.1.3, 3.3.1, 3.5.3. and 3.5.5.

3) At the company's request all references to "Structurwood" were changed to OSB. Also, the company requested to remove all references to the RTO control devices since the RCOs have been successfully maintaining the necessary MACT reductions with significantly less natural gas usage. The company has expressed they will not be going back to RTO operation, however, the RTO temperature limits established within condition 4.1.28 of the Title V permit were maintained in case of emergency situations.

4) This is the second Title V renewal for this facility. CAM was addressed in the first renewal. CAM for the changes made in SM01 were addressed in its corresponding FactSheet. MM01 did not result in any changes to the previous CAM applicability determination. Likewise, SM02 also did not result in any changes.

Non-Applicability Determinations

The following requirements have been determined not to be applicable to the subject facility due to the following:

40 C.F.R. 60, Subpart Kb – "Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984." 40 C.F.R. 60, Subpart Kb applies to each storage vessel with a capacity greater than or equal to $75m^3$ (19,813 gallons) that is used to store volatile organic liquids for which construction, reconstruction, or modification commenced after July 23, 1984. All tanks at the facility were installed after the July 23, 1984 applicability date, but are not subject to the requirements of 40 C.F.R. 60, Subpart Kb because their capacities are less than 75 m^3.

There are no Greenhouse Gas Clean Air Act requirements for this facility because the facility has not made any changes that triggered a PSD permit modification.

Request for Variances or Alternatives

None.

Insignificant Activities

Insignificant emission unit(s) and activities are identified in the Title V application.

Comment Period

Beginning Date: March 5, 2013
Ending Date: April 4, 2013

All written comments should be addressed to the following individual and office:

Jesse Hanshaw, P.E.
Title V Permit Writer
West Virginia Department of Environmental Protection
Division of Air Quality
601 57th Street SE
Charleston, WV 25304

Procedure for Requesting Public Hearing

During the public comment period, any interested person may submit written comments on the draft permit and may request a public hearing, if no public hearing has already been scheduled. A request for public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing. The Secretary shall grant such a request for a hearing if he/she concludes that a public hearing is appropriate. Any public hearing shall be held in the general area in which the facility is located.

Point of Contact

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Response to Comments (Statement of Basis)

No comments received